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Chapter 3

Guidelines for Additions to Historic Buildings

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3.1 Introduction

An addition may be an appropriate improvement to a historic structure. It can enhance the continued use of a property, and express its changing functions.

This chapter provides guidelines for additions to historic structures, including individually-designated Denver landmarks and contributing structures in historic districts.

The guidelines seek to minimize the visual and physical impacts of an addition on the historic structure and its surrounding context. However, an addition does not have to be completely hidden from view.

Chapter 4: Guidelines for New Building and Non-Contributing Buildings provides guidelines for new construction in historic districts and additions to non-contributing buildings.

Illustrations Used in this Document

The design guidelines include many photographs and diagrams to illustrate acceptable or unacceptable approaches. The illustrations are provided as examples and are not intended to indicate the only options.

If there appears to be a conflict between the text of the design guidelines and a related illustration, the text shall prevail.

Approaches for an Addition

For many properties, an addition to the rear of the historic structure is the best approach. This is particularly the case for single-family residences. In other situations, a rooftop addition may be an appropriate approach, more often for commercial structures. When considering the appropriateness of a proposed addition, evaluate the impacts of the work on the property and the following design variables.

Impact Considerations for an Addition

Consider the visual and physical impacts of the addition on the integrity of the property, and one's ability to perceive its historic character, as well as that of its context.

Some impact-related factors to consider include:

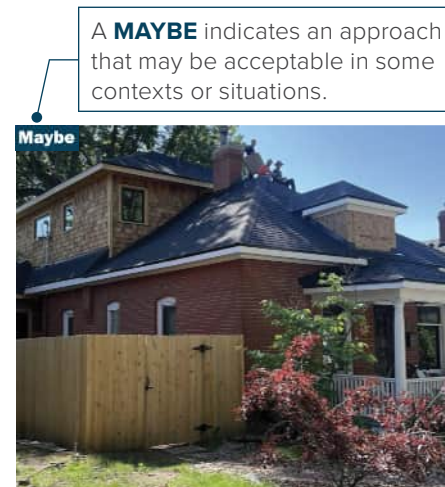
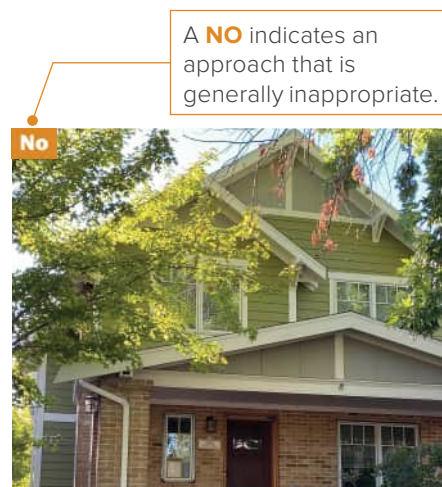
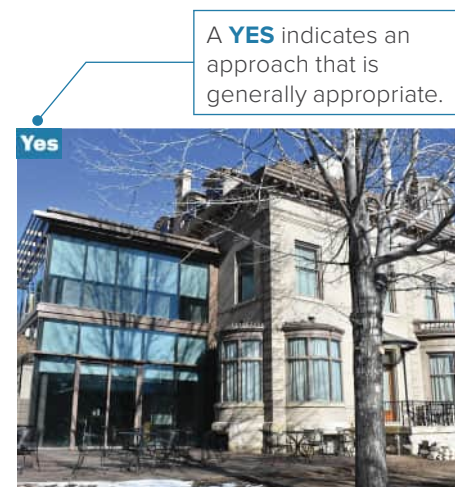
- **The impact on the historic structure:**
 1. Is the addition visible?
 2. Does the addition remain visually subordinate to the historic structure?
 3. Is one's ability to interpret the historic character retained (especially in terms of perceiving the original mass, scale, and prominence of the property)?
 4. Are alterations to key character-defining features avoided or at least minimized?
 5. Is the structural integrity of the property retained, or even improved?
- **The impact on the block as a whole:**
 6. Are the rhythm and alignment of structures and their key features typical of the block being retained?
 7. Is the perception of the scale of structures along the block retained, as experienced at the street level?
 8. If the character of the alley streetscape is also significant, are the key features also being retained?

Design Variables for an Addition

Consider whether the basic scale and proportions of the addition will relate to the primary structure and surrounding historic context.

Design variables to consider include:

- **The height of the addition.** Keeping floor heights in the range of those on the historic structure, or even lower, may help keep an addition visually subordinate to the historic structure.
- **The degree of setback.** Does the original primary facade (front) remain visually prominent? An addition should be setback from the facade and other key walls that contribute to the character of the property. The setback should be a sufficient distance such that the historic structure remains visually prominent.
- **Simplicity of design.** Is the design of the addition subordinate in character? The design should be relatively simple in architectural character and detailing, such that it does not call undue attention to itself. The historic structure should remain the prominent feature.



Examples of Compatible Residential and Commercial Additions



3.2 General Principles for Additions

Intent Statements

- 3A** To maintain the general appearance of a historic structure, especially from key public vantage points, when building an addition
- 3B** To minimize damage to the original structure and preserve character-defining features when building an addition
- 3C** To avoid adversely affecting the character-defining features of an historic district when building an addition
- 3D** To ensure that an addition relates to the fundamental characteristics of the block while also appearing as current construction

Guidelines for All Additions to Historic Structures

3.2.1 Locate an addition to be subordinate to the original structure.

- a. Place an addition to the rear of the original structure whenever possible.
- b. See Guidelines 3.3 for additions to residential structures and Guidelines 3.4 for additions to commercial structures.

3.2.2 Locate an addition to retain open space patterns.

- a. Retain original open space at the sides and rear of the structure.
- b. Avoid removing existing open space with a large addition.

3.2.3 Design an addition to a historic structure to respect the character-defining features of the historic district, the surrounding historic context, and the historic primary structure.

- a. Design an addition to be compatible with the scale, massing and rhythm of the historic structure and context.
- b. Align porch eaves, roof lines and other features with adjacent structures, when possible.
- c. Retain the appearance and orientation of the historic primary entrance.

Alternative to New Additions

Owners of historic properties are encouraged to consider alternatives such as finishing a basement or attic, instead of an addition.

A new secondary structure or an addition to an existing secondary structure may also be considered as an alternative.



Left: Locate an addition to be subordinate to the original structure, such as this commercial rooftop addition that is setback from the primary facade.

Guidelines for All Additions to Historic Structures (continued)

3.2.4 Design an addition to be recognized as current construction.

- a. Differentiate an addition from the original structure with an offset of at least four inches.
- b. Differentiate an addition from the original structure with a change in material or size. In more vernacular building styles, this may be a relatively subtle change or distinction. If distinctions from old and new are subtle, a date plaque for new construction is also recommended.
- c. Use simplified versions of building components and details found in the surrounding historic context. These may include:
 - » A cornice or other definition of the roof line
 - » A distinctive storefront or main door surround
 - » Window moldings or other features
 - » Porches
- d. Do not design an addition to be an exact copy of the existing style or imply an earlier period or more ornate style than that of the original structure.
- e. Do not design an addition to contrast starkly with the original structure. At a minimum, an acceptable design should be neutral and not detract from the district's or structure's historic character.

3.2.5 Do not damage historic building fabric or obscure key character-defining features of the primary structure when building an addition.

- a. Minimize the removal of original building fabric when attaching an addition.
- b. Design an addition so it can be removed without destroying original materials or features.
- c. Avoid damaging historic façades, cornice lines or other details.
- d. Avoid an addition that impacts the original building's structural system.



Left: Design an addition to be recognized as current construction. **Left:** Differentiate a new addition from the original structure by providing an offset of at least four inches when using a similar material palette.

Historic Additions

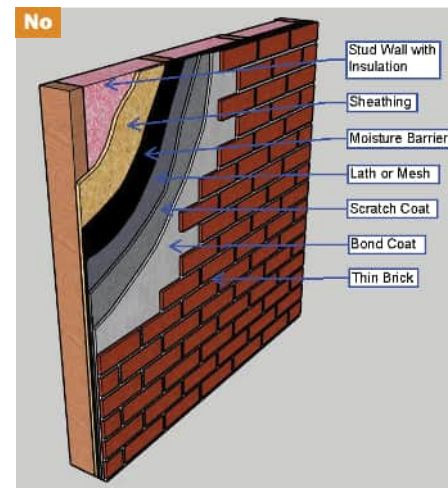
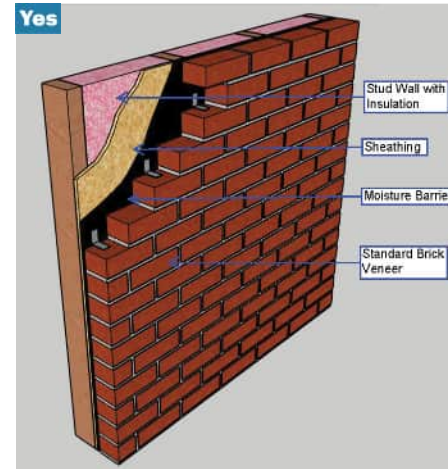
In certain cases, past alterations have gained historic significance. Additions constructed during a district's period of significance are considered part of the building's history and have become historically significant in their own right. However, once a district or landmark has been designated, new alterations to the front of a building are generally inappropriate and are discouraged by the LPC, as they can diminish the overall integrity of the historic property.



Guidelines for All Additions to Historic Structures (continued)

3.2.6 Use materials that appear similar in scale, color, texture, and finish to those seen historically on the primary structure or in the historic context.

- Use brick that is a standard brick size and depth and does not have tumbled edges. Thin brick veneer (brick tiles attached to the building façade with mortar or grout) is not allowed. Precast panels with standard brick embedded into the panels may be appropriate in a commercial or industrial context.
- Stone, cast stone, and other masonry materials are appropriate when matching those found in the historic context.
- Use stucco that is a cementitious stucco at least 7/8" thick. EIFS is not allowed. The use of fiber cement panels should be limited to areas that are not readily visible and small expanses of the wall surface.
- Install architectural metals in a traditional manner, for example with vertical standing seams. Architectural metals should be limited to areas that are not readily visible when used in a residential context but more visible applications may be appropriate in commercial and industrial contexts. Architectural metals should have a matte finish. The use of weathering steel should be limited to areas where it will not damage historic building materials.
- Install wood cladding materials in a traditional manner. Apply clapboard, shingles, and shakes horizontally, and limit exposures to 4" to 6". If proposing larger exposures, document similar examples in the surrounding historic context. Vertical tongue-and groove or board-and-batten siding may be used only for small expanses of walls that are not readily visible from public vantage points.
- Fiber-cement lap siding or boards, or other durable manufactured wood siding and trim must have a smooth finish. Fiber-cement or durable manufactured wood shingles may have a simulated faux-wood grain texture.
- New materials that convey characteristics similar to historic materials may be appropriate if they have a similar appearance, size and shape to traditional materials.
- Avoid using a wide range of different building materials when buildings in the surrounding historic context typically use a simple combination of materials.

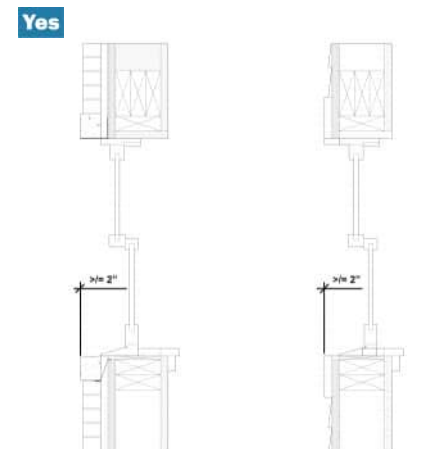


Left: Materials on a large side and rear addition are similar in scale, color, texture, and finish to those found historically. **Top Right:** Architectural metals used on a rear addition with limited visibility from public vantage points. **Middle Right:** Modern brick wall construction with standard brick size and depth. **Bottom Right:** Thin brick veneer tiles are not permitted.

Guidelines for All Additions to Historic Structures (continued)

3.2.7 Design windows, doors and other features on an addition to be compatible with the historic primary structure and historic context.

- Incorporate windows, doors and other openings at a ratio similar to those found on the historic structure and in the surrounding historic context.
- When using contemporary window patterns and designs, ensure they are compatible with the character and proportions of windows on the historic structure and in the surrounding historic context.
- Maintain the typical historic placement of window headers and sills relative to cornices, string courses and belt courses.
- Use window and door widths and heights that are similar to windows and doors on the historic building and in the surrounding historic context.
- Additional flexibility may be granted for window and door placement on façades that are not readily visible from public vantage points.
- Inset a window into the wall at least 2-inches from the wall plane. For a double- or single-hung window, the inset may be measured from the lower sash.
- Use window materials that are similar to windows on the historic building and in the surrounding historic context. For example, wood, aluminum-clad wood, fiberglass composite, and Fibrex are appropriate window materials for use on most residential additions.
- When using divided-light windows on an addition, use a design based on windows found on the historic building and in the surrounding historic context and ensure that some other design element differentiates the addition as new. Use true divided lights or simulated divided lights with a spacer bar (interstitial spacer between the double-glazed panes of glass). Windows with only muntins between the panes of glass are not allowed.
- Use a simplified design of an historic door rather than replicating exactly an historic door found on the primary structure.
- Use clear or near clear low-e glass in glazing. Windows at bathrooms and doors on secondary elevations may have frosted glazing.



3.2.8 Design the roof of a new addition to be compatible with the original structure and surrounding historic context.

- Use a roof form that is consistent with the original structure's roof form and those of structures in the surrounding historic context in terms of pitch, orientation, and complexity. An addition with a pitched roof is usually inappropriate for a structure with a flat roof.
- If using contemporary materials, they should be compatible with historic roof materials in visual impact, texture, and relationship to architectural style.



Top Left: Punched window openings on a rear addition to match the historic punched window openings. **Middle Right:** Simulated divided light window with a spacer bar between the double glazed panes of glass. **Bottom Right:** Double-hung windows inset into the wall plane of a masonry facade and a wood lap siding facade. **Middle:** A rear addition with a gable roof from that is consistent with the original roof form. **Left:** A rear addition with a gable roof set at a different orientation than the primary gable roof, but its scale and form remain compatible with the building's historic roof structure.

3.3 Principles for Residential Additions

Intent Statements

- 3E** To preserve the appearance and integrity of a historic residential structure and district by ensuring that an addition does not damage historic materials
- 3F** To ensure that an addition is subordinate to the main structure, has minimal visibility from public vantage points, and is compatible with the surrounding historic context

Guidelines for Residential Additions

3.3.1 Locate an addition to a residential structure to be subordinate to the existing structure.

- a. Design an addition to have minimal visual impact to the existing structure.
- b. Place a one-story addition to the rear of the existing structure, if possible.
- c. Consider a compatible side addition if a one-story rear addition is not possible.
- d. Consider a compatible rooftop addition for a one-story house if there are no other alternatives. A limited program rooftop addition on a one-story house may be appropriate when the house is located on a small lot and there are no opportunities for expansion elsewhere on the property.
- e. Avoid locating a rooftop addition on an individually-designated Denver landmark structure. Such additions are generally not allowed because of the existing structure's elevated level of significance.



Left: The one-story brick addition at the rear is subordinate to the main structure and uses similar materials but is slightly differentiated and placed at the rear. **Right:** A rear addition that uses a roof form and material palette similar to the historic structure.

Location & Design of a Residential Addition

Illustrations below and on the following page show several scenarios of rear and rooftop additions to a historic residential structure. The illustrations depict a typical condition on an interior, mid-block, non-corner lot. The location and design of the additions shown here are compatible with both the historic building and the surrounding context, except where noted.

Subordinate Rear One-Story Addition

This modestly-scaled rear addition is minimally visible from the public right-of-way to achieve a high level of compatibility with the historic structure and context.



Subordinate Rear One-Story Addition with Connecting Element

This rear-addition is clearly differentiated from the original building with a connecting element that also breaks the wall planes between the original structure and the addition to achieve a high level of compatibility with the historic structure and context.



Rear Two-Story Addition with Connecting Element

This rear-addition is taller than the original structure but is still clearly differentiated with a connecting element. In most cases, this achieves an acceptable level of compatibility with the historic structure and context.



Incompatible Rear Two-Story Addition

This two-story addition is not compatible with the historic building and context because it overpowers the original building. It is also wider than the original building, which makes it more visible from the public right-of-way.



Rear Dormer Addition

This new shed dormer provides a compatible small-scale addition because it is located on the rear slope of the existing roof and is minimally visible from the public right-of-way. See additional guidelines for rooftop alterations, including dormers, in Chapter 2.



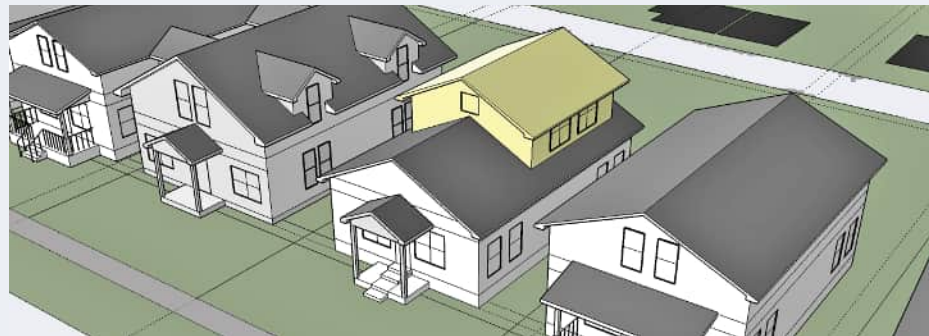
Side Dormer Addition

This new shed dormer provides a compatible small-scale addition because it is located substantially to the rear of the building. Note that dormer shapes on roofs visible from the street should match roof forms and dormer shapes seen historically whenever possible, but shed dormers can be appropriate if unobtrusive.



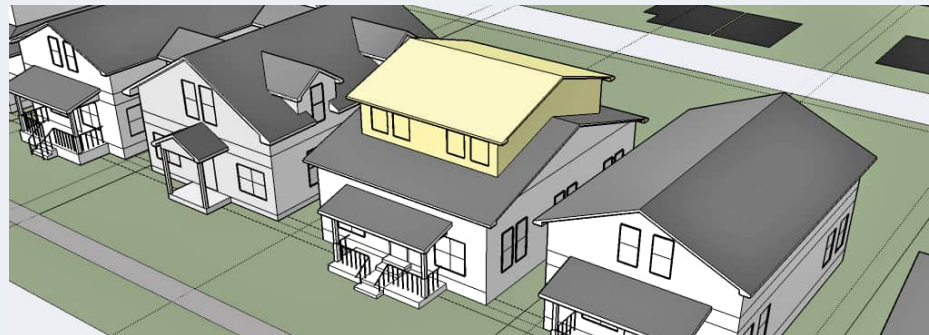
Pop-top Addition

This rooftop addition is setback from the front facade and side elevations and is as low as possible. The illustrated design may not be appropriate in all cases and would require sensitivity to ensure that the integrity of the historic building is retained.



Incompatible Pop-top Addition

This rooftop addition is setback from the front facade and side elevations. However, it is not compatible with the historic context because it overpowers the original building, extends onto the front facing roof plane, and destroys a significant portion of the historic roof.



Incompatible Pop-top Addition

This rooftop addition is not compatible with the historic building and context because it overpowers the original structure's mass and scale, adversely affecting its integrity. The minimal setback from the front facade makes it highly visible from the public right-of-way.



Guidelines for Residential Additions (continued)

3.3.2 Design an addition to a historic residential structure to be compatible with, but differentiated from, the existing structure.

- Use subtle changes in material, color, and/or wall plane, to differentiate an addition.
- Design an addition as a simplified version of the architectural style of the original structure, or in a compatible, contemporary style.
- Consider using a lower-scale connecting element to join an addition to a historic structure, particularly for large or two-story additions.

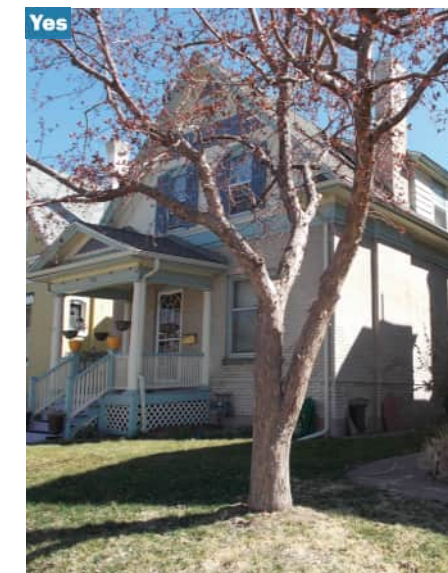
3.3.3 Design a rooftop addition to minimize impacts on the residential structure and the context of the historic district (when warranted based on Guideline 3.3.1).

- Set back a rooftop addition a minimum of 15 feet from the highest point of the primary façade to reduce its visual impact, help preserve the historic roof form, differentiate it from the original façade, and remain subordinate to the existing structure.
- Set back a rooftop addition at least two feet from the side façades of the existing structure to reduce potential visual impacts and help preserve the existing roof form and historic building materials.
- Minimize the height of a rooftop addition to ensure the historic structure remains visually prominent. Utilize dormers and knee walls to keep heights low.
- Do not obscure, cover or remove historic features when adding a rooftop addition.

Height & Bulk Plane and Landmark Administrative Adjustments

The Denver Zoning Code includes a height and bulk plane standard that limits building height along the sides and rear of a property, and further reduces allowable height within the rear 35% of the zone lot to help preserve sunlight access and backyard privacy.

Because the most compatible location for an addition to a historic structure is typically at the rear, it can sometimes be challenging to design an addition that fits within these height and bulk plane requirements. While all additions should make every effort to comply with the zoning standards, there are instances where the Landmark Preservation Commission (LPC) may recommend an administrative adjustment to the height and bulk plane. This zoning relief may be provided when the LPC finds that conforming with the zoning standard would have an adverse impact on the historic character of the historic district or individual landmark.



Left: A small dormer addition placed just behind the chimney to retain and preserve the historic roof form and features. **Middle:** A pop-top addition, currently under construction, set back 15 feet from the primary façade and located behind the central chimney. **Right:** A pop-top addition that is flush with the primary façade, which neither minimizes the visual impact of the addition nor preserves the original roof features.

3.4 Principles for Commercial Additions

Intent Statements

- 3G** To preserve the historic streetscape and the appearance of a historic commercial structure by minimizing the visibility of a new addition from the street, sidewalk and surrounding properties
- 3H** To maintain patterns found in the surrounding historic context when designing and locating a commercial addition

Guidelines for Commercial Additions

3.4.1 Locate an addition to a historic commercial structure to be subordinate to the primary structure.

- a. Set an upper-floor addition back, typically at least 15 feet, from the primary façade, to preserve the perception of the historic scale of the structure. Small exceptions to a side street setback may be appropriate for buildings less than 75 feet wide as long as the addition is not readily visible from public vantage points.
- b. Minimize the height of a rooftop addition to ensure the historic structure remains visually prominent.
- c. Do not locate an addition in front of, or flush with the primary façade

3.4.2 Design an addition to a historic commercial structure to be clearly differentiated from the original structure.

- a. Design the addition to be modest in character, and in either a simplified version of the original structure's style or a compatible, contemporary style, so it will not detract from the historic structure.
- b. Differentiate an addition from the original structure with a change in material, color and/or wall plane.

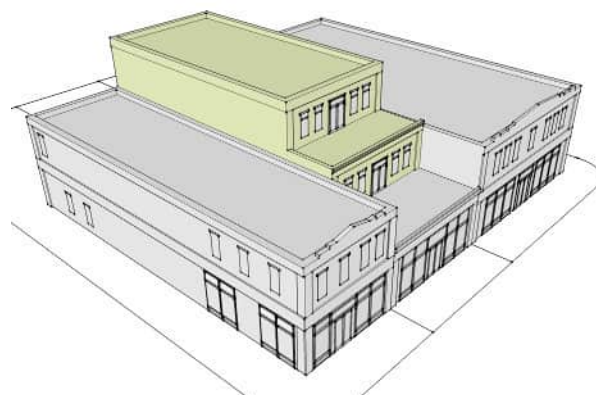
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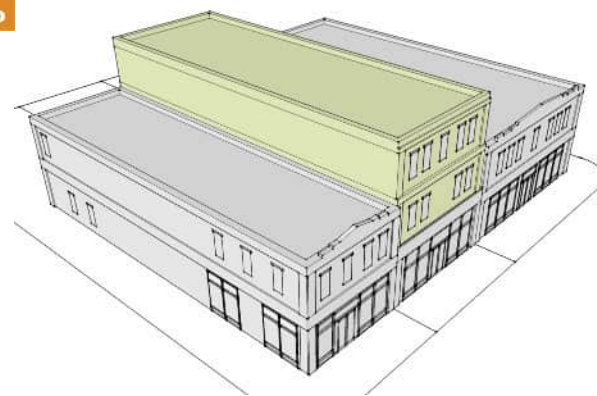
Yes



Maybe



No



Top Right: Minimize the visibility of a rooftop addition from the street. The commercial building has an addition that is screened by the building parapet.
Top Left: The addition becomes minimally visible as you move along the street; however, because it is placed at the rear of the roof, it does not negatively impact the historic character. **Bottom Right:** Set an upper-floor addition back from the primary façade. **Bottom Left:** Do not construct an addition flush to the primary façade.

